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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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| 09/285,899 | 04/08/99 | YAMAZAKI | S 0756-1950 |

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MM12/0128

EXAMINER

DUDEK, J

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 01/28/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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Office Action Summary

Application No.
09/285,899

Applicant(s)
Yamazaki et al

Examiner
James Dudek

Group Art Unit
2871



☒ Responsive to communication(s) filed on Nov 5, 1999

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-56 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☒ Claim(s) 5-8, 17-20, 29-32, and 41-44 is/are allowed.

☒ Claim(s) 1-4, 9-16, 21-28, 33-40, and 45-56 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit:

DETAILED ACTION

Specification

1. The title of the invention is not sufficiently descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-4, 9-16, 21-28, 33-40 and 45-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inaba et al (5,227,900) in view of Takeshita et al (61-141174).

Per claims 1-3 and 25-27, Inaba et al discloses the claimed invention except for the organic resin film leveling layer and the pixel electrode formed on top of the leveling layer. However, Takeshita et al teach that the usual way of forming a TFT is by forming a leveling layer. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the leveling layer of Takeshita et al with the ferroelectric display of Inaba et al since, as taught by Inaba et al, this was well known.

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Per claims 9-11, 21-23, 33-35, and 45-47 Inaba et al discloses the claimed invention, as described above, except for the leveling layer formed on the second substrate. However, it was conventional to form a passivation layer (which would level the layer) on the second substrate to protect the color filters. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a leveling layer on the second substrate in order to protect the color filters.

Per claims 13-15 and 21-23, Inaba et al discloses the claimed invention, as described above, except for the television tuner. However, it was conventional to add a tuner to an LCD in order to display television images. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add a tuner to the display of Inaba et al in order to display television images.

Per claims 37-39 and 45-47, it was conventional to add a light and lens projector.

Per claims 4, 12, 16, 24, 28, 36, 40, and 48 Inaba et al discloses the claimed invention, as described above, except for the top gate structure. However, it was well known to substitute a top bottom gate TFT for a top gate TFT in the LCD art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute a top gate TFT for the bottom gate TFT of Inaba et al, since it was a well known substitution.

Response to Arguments

4. Applicant's arguments filed 11/5/99 have been fully considered but they are not persuasive.

Regarding Applicant's sole argument that the Examiner has not established *prima facie* case of obviousness, the Examiner respectfully disagrees. The claimed limitations are taught by the combination of Inaba et al and Takeshita et al. Until such a time that the Applicant explains what claimed limitation is missing from the combination, the Examiner will be unable to direct Applicant to the area of specification of either Inaba et al and Takeshita et al to find the missing claimed limitation. Regarding the motivation, on page 3, lines 20-21, Takeshita et al clearly state that "Usually, poly-silicon TFTs are formed by the above mentioned method." On page 3, lines

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19-20 of Takeshita et al, teach that a polyimide resin or the like is formed for leveling an interlayer insulator. Thus, the motivation for the level layer is that usually (or conventionally) TFTs are formed with leveling layers.

Allowable Subject Matter

5. Claims 5-8, 17-20, 29-32 and 41-44 are allowed.

Conclusion


6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication should be directed to James Dudek at telephone number (703) 308-4093.

January 20, 2000


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Technology Center 280